RESPONSE TO RESTRICTION REQUIREMENT

Serial Number: 10/734,703

Filing Date: December 12, 2003

Title: TECHNIQUES FOR SHAPING DATA TRANSMISSION RATES

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## IN THE CLAIMS

(Original) A method for shaping a sender's transmission rate, comprising: 1. receiving a network packet from a sender over a network; identifying a desired transmission rate for the sender; and delaying the sending of an acknowledgment to the sender for an elapsed period in order to

achieve the desired transmission rate, wherein the sender transmits a subsequent network packet upon receipt of the acknowledgment.

- (Original) The method of claim 1 wherein the receiving further includes receiving the 2. network packet in a first queue associated with an Internet Protocol (IP) application.
- (Original) The method of claim 2 further comprising forwarding the network packet to a 3. Transmission Control Protocol (TCP) application after the elapsed period of time has passed, and wherein the acknowledgment is sent from the TCP application to the sender upon receipt of the network packet.
- (Original) The method of claim 1 further comprising modifying a header of the 4. acknowledgment that is sent to the sender which instructs the sender to slow transmission rates down for the subsequent network packet sent to the method.
- (Original) The method of claim 4 wherein the modifying further includes identifying a 5. single byte as missing from the network packet which instructs the sender to resend the missing byte and to slow transmission rates down for the subsequent network packet sent to the method.
- (Original) The method of claim 5 wherein the sending further includes using a Selective 6. Acknowledgment technique when sending the acknowledgement to the sender.

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7. (Original) The method of claim 4 wherein the sending further includes using an Explicit Congestion Notification technique when sending the acknowledgment.

8. (Original) A method for rate shaping network transmissions, comprising:
detecting network transmissions occurring with a first application and a second application;

determining that the first application is a higher priority than the second application; and decreasing a rate at which acknowledgments are sent to the second application in order to decrease a second application's transmission rate of network packets.

- 9. (Original) The method of claim 8 wherein the decreasing further includes delaying the forwarding of a number of the network packets associated with the second application from an Internet Protocol (IP) stack layer to a Transmission Control Protocol (TCP) stack layer in order to decrease the rate.
- 10. (Original) The method of claim 8 further comprising assigning priorities to the first and second applications automatically based on communication ports being used by the first and second applications.
- 11. (Original) The method of claim 8 further comprising manually assigning priorities to the first and second applications.
- 12. (Original) The method of claim 8 further comprising instructing the second application via headers associated with the acknowledgments to decrease the second application's transmission rate.
- 13. (Original) The method of claim 8 further comprising communicating with the first and second applications via Transmission Control Protocol/Internet Protocol (TCP/IP).

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(Original) The method of claim 8 further comprising intentionally not sending a needed 14. one of the acknowledgments for the second application, which causes the second application to resend a number of the network packets and to decrease the second application's transmission rate.

15.-27. (Canceled)